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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,677	01/26/2004	Feng Deng	0023-0196CON1	9887

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HARRITY SNYDER, LLP
11350 Random Hills Road
SUITE 600
FAIRFAX, VA 22030

EXAMINER	
POLTORAK, PIOTR	

ART UNIT	PAPER NUMBER
2134	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/765,677	DENG ET AL.	
	Examiner	Art Unit	
	Peter Poltorak	2134	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for priority based on an application 09/283,730 now patent 6,701,432 filed on 4/01/1999.

   However, the examiner did not find the support of claim 2 limitations in the original specification (filed on 4/01/1999). In order to ascertain the earlier priority date for claim 2, applicant should provide evidence that such a support exists.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 3-7, 9-10 and 12 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 8, 10, 12 and 15-16 of U.S. Patent No. 6,701,432. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 3-7, 9-10 and 12 in the instant application contain(s) every element of claim(s) 1, 8, 10, 12 and 15-16 in U.S. Patent No. 6,701,432.

   Claims 1, 3-7, 9-10 and 12 of the instant application are anticipated by patent claims in that claims 1, 8, 10, 12 and 15-16 of the patent contains essentially all the limitations of claim 1, 3-7, 9-10 and 12 of the instant application. Claim 1 of the instant application therefore is not patently distinct from the earlier patent claim and as such is unpatentable for obvious-type double patenting.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that applicant regards as the invention.

   The phrase "is not coextensive with" in claim 2 is not understood.

Appropriate correction is required.

Claim Rejections - 35 USC § 102 or 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 5, 9 and 11 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA).

   As per claims 1, 5, 9, 11 and 9, APA discloses a memory bus coupling memory to a firewall engine for storing packets to be screened by the firewall engine (Fig. 1 a and b and associated text).

5.

6. APA does not disclose multiple buses providing multiple data paths between two devices, i.e. a second (or a local memory) bus in addition to the memory bus providing an alternative parallel path for retrieval of packets from the memory. However, multiple data paths between two devices, one of which is memory is at least implicit if not inherent: in addition to a data bus there is an instruction bus. The examiner also points out that, frequently various devices are coupled using two buses: one bus for data transmission and a second bus for data reception and It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to provide two bidirectional buses given the benefit of more efficient data transmission.

7. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA) in view of McDermid (USPN 6223237).
As per claims 1, 5, 9 and 11, APA discloses a memory bus coupling memory to a firewall engine for storing packets to be screened by the firewall engine (Fig. 1 b and associated text as well as the preamble of claim 9).

8. APA does not disclose multiple buses providing multiple data paths between two devices, i.e. a second (or a local memory) bus in addition to the memory bus providing an alternative parallel path for retrieval of packets from the memory. McDermid discloses multiple buses providing multiple data paths between two devices (Fig. 1 and col. 5 lines 1-40). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include a second bus to connect two devices as taught by McDermid. One of ordinary skill in the art would have been

motivated to perform such a modification in order to improve throughput of the data transfer.

9. The examiner points out that even if McDermid did not disclose multiple buses connecting devices, connecting multiple computing devices is old and well known in the art of computer science (fault tolerance/fail over/redundancy, parallel computing etc.), and implementing multiple buses coupling two devices would have been obvious to one of ordinary skill in the art at the time of applicant's invention given the benefit of system's security (allowing to receive data over an alternative path when a primary bus fails) and increase throughput (see the difference between serial and paraller data communication).

10. As per claims 3-4, 6-7, 10, 12, McDermid discloses retrieving/sending packets on two buses contemporaneously (col. 2 lines 14-19).

11. As per claim 13, McDermid discloses a control logic operable to select a bus from among a plurality of buses (Fig. 2, col. 6 lines 5-38).

12. As per claim 2, Fig. 2 clearly discloses that McDermid invention implements its invention using two buses that are parallel over some extent, that have a portion not parallel, and that are not coextensive with each other.

13. Claim 14 is rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as being unpatentable over Admitted Prior Art (APA) in view of McDermid (USPN 6223237) in view of Pfaffenberg (Bryan Pfaffenberg, "Webster's New World", ISBN: 0028628845, 1999).

APA in view of McDermid discloses the control logic as discussed above.

14. APA in view of McDermid does not disclose that the control logic includes a direct memory access engine.

15. Webster discloses a direct memory access engine (DMA controller, pg. 163). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to include DMA engine as taught by Webster giving the benefit of improvement of the system's performance.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Goto (USPN 5379394),

Gustavson (USPN 6226723).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Poltorak whose telephone number is (571) 272-3840. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from 9:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

6/19/07

KAMBIZ ZAND
SUPERVISORY PATENT EXAMINER